

I claim:

1. An exhaust system for a marine engine, comprising:

an exhaust conduit shaped to be connected in fluid communication with at

5 least one exhaust port of said engine to direct exhaust gases from said engine;

a coolant conduit disposed in thermal communication with said exhaust conduit, said coolant conduit comprising a first coolant passage and a second coolant passage;

10 a coolant inlet port disposed in fluid communication with said coolant conduit to direct a flow of coolant into said first and second coolant passages; and

an orifice disposed in fluid communication between said coolant inlet port and said second coolant passage.

2. The exhaust system of claim 1, wherein:

15 said orifice and said first and second coolant passages define a first coolant path from said coolant inlet port through said first coolant passage into said second coolant passage and a second coolant path from said coolant inlet port through said orifice into said second coolant passage.

20 3. The exhaust system of claim 1, wherein:

said orifice is shaped to provide increased resistance to flow of said coolant through said orifice as a function of increased flow of said coolant through said coolant inlet port.

4. The exhaust system of claim 1, wherein:

the relative flow rates of coolant through said first and second coolant passages is determined as a function of the flow rate of said coolant through said coolant inlet port.

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5. The exhaust system of claim 1, further comprising:

a drain opening disposed in fluid communication between said coolant conduit and said exhaust conduit.

10 6. The exhaust system of claim 1, further comprising:

a coolant outlet port connected on fluid communication with said coolant conduit for conducting said coolant away from said coolant conduit.

7. The exhaust system of claim 6, wherein:

15 said coolant outlet port is disposed in fluid communication between said exhaust conduit and said coolant conduit to conduct said coolant into a stream of said exhaust gases.

8. The exhaust system of claim 1, wherein:

20 said exhaust conduit and said coolant conduit are disposed within an exhaust elbow of said exhaust system.

9. The exhaust system of claim 1, wherein:

25 said coolant conduit is a coolant conducting jacket which surrounds at least a portion of said exhaust conduit.

10. An exhaust system for a marine engine, comprising:

an exhaust conduit shaped to be connected in fluid communication with at least one exhaust port of said engine to direct exhaust gases from said engine;

a coolant conduit disposed in thermal communication with said exhaust  
5 conduit, said coolant conduit comprising a first coolant passage and a second coolant passage;

a coolant inlet port disposed in fluid communication with said coolant conduit to direct a flow of coolant into said first and second coolant passages; and

an orifice disposed in fluid communication between said coolant inlet port  
10 and said second coolant passage, said orifice and said first and second coolant passages define a first coolant path from said coolant inlet port through said first coolant passage into said second coolant passage and a second coolant path from said coolant inlet port through said orifice into said second coolant passage.

15 11. The exhaust system of claim 10, wherein:

said orifice is shaped to provide increased resistance to flow of said coolant through said orifice as a function of increased flow of said coolant through said coolant inlet port.

20 12. The exhaust system of claim 11, wherein:

the relative flow rates of coolant through said first and second coolant passages is determined as a function of the flow rate of said coolant through said coolant inlet port.

25 13. The exhaust system of claim 12, further comprising:

a drain opening disposed in fluid communication between said coolant conduit and said exhaust conduit.

14. The exhaust system of claim 13, further comprising:

a coolant outlet port connected on fluid communication with said coolant conduit for conducting said coolant away from said coolant conduit, said coolant outlet port being disposed in fluid communication between said exhaust conduit  
5 and said coolant conduit to conduct said coolant into a stream of said exhaust gases.

15. The exhaust system of claim 14, wherein:

said exhaust conduit and said coolant conduit are disposed within an exhaust  
10 elbow of said exhaust system, said coolant conduit being a coolant conducting jacket which surrounds at least a portion of said exhaust conduit.

16. An exhaust elbow for a marine engine, comprising:

an first conduit shaped to be connected in fluid communication with at least  
15 one exhaust port of said engine to direct exhaust gases from said engine;

a second conduit disposed in thermal communication with said first conduit, said second conduit comprising a first water passage and a second water passage;

a inlet port disposed in fluid communication with said second conduit to direct a flow of water into said first and second water passages; and

20 an orifice disposed in fluid communication between said inlet port and said second water passage, said orifice being shaped to provide increased resistance to flow of said water through said orifice as a function of increased flow of said water through said inlet port, the relative flow rates of water through said first and second water passages being determined as a function of the flow rate of said water  
25 through said inlet port.

17. The exhaust system of claim 16, wherein:

said orifice and said first and second water passages define a first water path from said inlet port through said first water passage into said second water passage and a second water path from said inlet port through said orifice into said second  
5 water passage.

18. The exhaust system of claim 17, further comprising:

a drain opening disposed in fluid communication between said second conduit and said first conduit.

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19. The exhaust system of claim 18, further comprising:

a water outlet port connected on fluid communication with said second conduit for conducting said water away from said second conduit, said water outlet port being disposed in fluid communication between said first conduit and said  
15 second conduit to conduct said water into a stream of said exhaust gases.

20. The exhaust system of claim 19, wherein:

said second conduit is a water conducting jacket which surrounds at least a portion of said first conduit.

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